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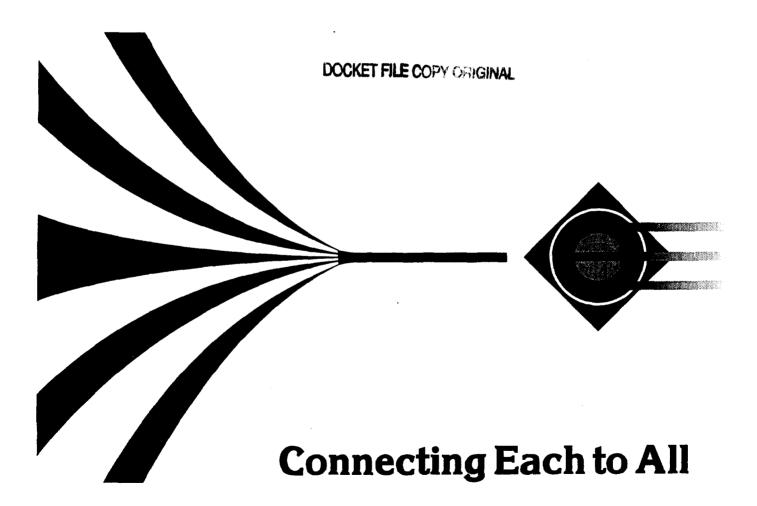
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Principles to Implement the Goal of Advanced Universal Service



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Connecting Each to All: Principles to Implement the Goal of Advanced Universal Service

Introduction

The Alliance for Public Technology (APT) is a coalition of individuals and more than ninety nonprofit groups. We believe that our nation cannot reap the full benefits from advances in telecommunications technology unless everyone has full access to a network that is capable of providing informational and transactional services using voice, high speed data, graphics and two-way video.

This document sets forth the principles which are essential to guide the implementation of an advanced universal service goal. It is a companion to the 1993 APT paper entitled, "Connecting Each to All: A Telecommunications Platform for the Information Age," which articulated APT's vision of universal service.

APT believes that as our nation moves toward an advanced information infrastructure, guiding principles will be necessary to achieve the goal of advanced universal service.

Alliance for Public Technology

Connecting Each to All: Principles to Implement the Goal of Advanced Universal Service

I. Goal: "Advanced Universal Service"

To make available as far as possible, to all people of the United States, regardless of race, color, national origin, income, residence in rural or urban area, or disability, high capacity two-way communications networks capable of enabling users to originate and receive affordable and accessible high quality, voice, data, graphics, video and other types of telecommunications services.

II. Principles: "A Public/Private Investment Strategy"

- 1. Transitional policies are necessary, but they must be treated as incremental and clearly linked to the permanent policies designed to achieve the goal.
- 2. Universal network deployment, interoperability and reliability are fundamental to achieving universal service.
- 3. A federal commitment to an advanced Universal Service goal must give a clear mandate to state and local governments to develop even-handed incentives for competitors to aggregate effective demand for community-based applications (i.e. education, health care, labor market operations, and the needs of the disability community).
- 4. Competition should be relied upon where it furthers the goal of advanced universal service and promotes citizen use of these new technologies.
- 5. We must create a fair regulatory environment as soon as possible that treats similar providers similarly, and responds quickly to changes in technology and the organization of industries.
- 6. Develop multi-level public/private partnerships among governmental agencies, community organizations and nonprofit and industry groups to create and implement telecommunications policy.
- 7. Recognize the importance of non-regulatory roles for governments at all levels (i.e. delivery of government services, contracting power, etc.).
- 8. Develop privacy, copyright and consumer protection safeguards and ensure training and demonstration projects for citizens and nonprofit organizations.

Connecting Each to All:

Principles to Implement the Goal of Advanced Universal Service A Public/Private Investment Strategy

I. Goal: Advanced Universal Service

"To make available as far as possible, to all people of the United States, regardless of race, color, national origin, income, residence in rural or urban area, or disability, high capacity two-way communications networks capable of enabling users to originate and receive affordable and accessible high quality, voice, data, graphics, video and other types of telecommunications services."

Why this goal?

Until now, the term "universal service" has been associated with making voice telephone service ubiquitous in a rapidly fading monopoly environment. In the emerging competitive environment of multi-media, multi-vendor, and fully inter-active communications, that narrow term and its regulatory baggage should give way to a new notion of "advanced universal service" that embraces a vastly expanded approach. By focusing on network capabilities, rather than specific technologies, APT's definition creates a new approach to universal service for the 21st century that recasts and restores the relevance of the concept advanced by the Communications Act of 1934 for the 20th century.

APT has adopted this goal because it is a natural evolution of the historic national communications policy of this country. Starting with the postal service and its rural free delivery and the precedent of the 1934 Communications Act, our nation's policies have encouraged communications services to the public. These policies are premised on the recognition that communication services are critical to the viability of our democratic society. APT's policy is also premised on the recognition that communication services are the glue that binds a democratic society together. This view is particularly applicable to modern communications networks which will dramatically affect the way citizens work, learn, participate in their government and access health care and other services. These networks can provide important and diverse benefits which include reduced cost and increased convenience and quality of important public services ranging from in-home health care to education and job training. Specific benefits include access to jobs for people now isolated from the economic mainstream; enhanced opportunities for participation in democratic decision making; increased social and economic opportunities for people with limited mobility; and greater opportunities to form ties with other people who have common interests and concerns. Societal benefits will only increase as more and more people are connected to the network for in-home delivery of health care, lifelong learning and parent/school involvement in programs such as home work assistance, help with English as a second language, access to government officials, and other similar services.

Achieving this goal presents a dilemma: people cannot receive these services if they cannot hook up to or afford and use the new wireline and wireless technologies necessary to deliver these services. The public will not demand that the new networks be installed if they do not know about or value the potential services that these advanced networks are capable of delivering. APT believes that a successful policy must comprise a two-pronged approach that addresses both the capabilities of the new networks and the creation of socially valuable services, especially those of a governmental nature, that should be available as soon as possible after the networks come on line.

Implicit in our functionality based approach to universal access to the new telecommunications technologies is the principle that we must build upon what we have achieved to date in pursuit of universal voice grade telephone service.

II. Principles:

The universal access goal outlined above will be achieved by carefully orchestrating policies and plans developed by entities in both the public and private sectors. Here we outline eight principles, all of which will be needed in order to facilitate the accomplishment of national public policy goals and lead us to the goal of advanced universal service.

1. Transitional policies are necessary but they must be treated as incremental, and clearly linked to the permanent policies designed to achieve the goal.

The transition to universal service will not be easy. We must ensure that people do not have to give up basic telephone service because the cost of infrastructure modernization, in a competitive environment, pushes cost based pricing to an unaffordable level. What we know today as universal service, (primarily voice-grade service), must be sustained in the transition to a broader concept of universal service and upgraded periodically as new ubiquity goals of our society evolve and become definable by advanced telecommunications service and products.

Transition policies must offer regulators flexibility to respond to changing conditions, always keeping the final goal of advanced universal service in mind. They must always be consistent with an approach to advanced universal service in the information age that is defined in functional terms rather than specific technologies.

A "safety net" fund in a market driven system is essential to achieving universal advanced service provided in a competitively neutral fashion and in a manner consistent with essential policy goals.

2. Universal network deployment, interoperability and reliability are fundamental to achieving universal service.

In order to reach our goal of universal service, public policy objectives must always strive to broaden the base of effective demand that drives private investments in the development and deployment of advanced networks.

It will be especially critical to ensure network deployment in underserved areas. Given the skewed population density and income distribution in the society, the "demand pull" that evolves out of the normal operations of markets may not be sufficient to achieve either the societal goals of universal service or the commercial requirements of ubiquity in our telecommunications networks. Public policy must focus on ensuring that the savings derived from the network productivity increases which result from modernization are captured to deploy the technology in these areas.

Where operating efficiencies are achieved through investments in advanced network technologies, public policy should give special attention to how those efficiencies are captured and deployed in the process of network modernization. High standards of connectivity, inter-operability and reliability are essential requirements of private networks which are to function as public infrastructure in a competitive environment. Public policy should also be focusing on how savings derived from network productivity increases may be used to advance network ubiquity and universal service goals.

By their very nature, operational savings derived from the modernization of public telecommunications infrastructure, while stemming from investments made in a competitive environment, retain a quasi-public quality. As they are plowed back into network development and deployment, they must be invested with a strong sense of public responsibility, consistent with achieving social and community goals. Current policies which impute productivity increases in price-cap regulation, therefore, need to be examined carefully to make sure they are compatible with advancing universal network deployment and developing applications of advanced technology that reach a broad spectrum of the society.

3. A federal commitment to an advanced universal service goal must give a clear mandate to state and local governments to develop even-handed incentives for competitors to aggregate demand for community-based applications of advanced telecommunications technology (i.e. education, health care, labor market operations, and the needs of the disability community).

The migration of voice-grade services to a fully interactive multimedia concept of universal service requires focus on developing community-based applications of new technologies. These applications can aggregate demand for advanced telecommunications and thus become significant drivers of private investment in developing and deploying the nation's public telecommunications infrastructure.

Even though development of community based applications are essential to market building, the telecommunications industry cannot be expected to assume the full burden of funding these applications. Aggregating demand requires that telecommunications policies be integrated with other public policies that can provide the basic financing for such applications. Public policy in telecommunications must recognize that it is in the interest of both competitors and the public to work cooperatively with local governmental agencies and under-funded community organizations to develop "interfacing" required for aggregating demand for community based applications. As the applications of new communication technologies are developed, they need to be integrated into the budgets of schools, libraries, health care systems, labor market operations and a wide variety of government services.

4. Competition should be relied upon where it furthers the goal of advanced universal service, and promotes citizen use of these new technologies.

A competitive model for all telecommunications services is the nation's best assurance that interactive, multi-media communications products and services will be expeditiously and efficiently developed and marketed. However, there is no assurance that the evolving environment for telecommunications will be fully competitive or that markets which are dominated by only a few competitors will necessarily allocate resources in a manner that addresses social needs and community priorities. Where competition evolves out of prior regulated-monopoly areas of service, special attention needs to be given to tendencies toward concentrations of market power. In pursuit of a competitive environment, for example, economies of scale and scope which are associated with market power should not be thrown to the wind. Where concentrations of market power persist in the face of the nation's commitment to competition, policies designed to promote competitive entry should be coupled with policies aimed at preventing economies of scale and scope from being dissipated by "niche" market competitors or others without assuming some responsibility for advancing network ubiquity and universal service goals.

Public policy makers must recognize that markets which are dominated by only a few competitors will not necessarily allocate resources in a manner that addresses social needs and community priorities. There will be areas, therefore, where regulation and oversight are essential to achieving the broader advanced universal goal of the information age. Local communities are already indicating a strong interest in how competitive network development and deployment address their community goals and priorities.

Specifically, where network investments fall short of achieving the infrastructure requirements of a diverse population, the focus of regulatory policy should be on how those requirements can be fulfilled to meet the needs of all citizens in society. Where regulatory intervention is necessary, our commitment to a competitive model requires that where possible such intervention be incentive-oriented.

The types of regulatory policies required are discussed in Principle 5.

5. We must create a fair regulatory environment as soon as possible that treats similar providers similarly, and responds quickly to changes in technology and the organization of industries.

Where regulation is necessary, it must be equitable and feasible and advance public policy. The goal over time must be that all telecommunications providers offering switched service, for example, be treated similarly. Regulation must minimize command and control and focus on creating incentives.

In developing even handed incentive regulation, market realities must be confronted. Market building investments in areas of social and community value may have longer turnaround periods than investments in other areas. Thus regulatory incentives and other public policies must be aimed at overcoming these market disincentives to long run market building and at facilitating applications of technologies which are "at risk" of being given secondary attention in the normal operations of markets. It must also focus on how network savings in productivity increase might be captured to deploy telecommunications technology to achieve social and community goals.

Other areas where regulation will be needed to ensure the kind of networks and services we envision are:

- Common carriage so that individual citizens can send as well as receive messages;
- Interconnection and interoperability;
- Security and reliability;
- Privacy;
- Consumer protection from fraud;
- Universal design so that hardware, software, and equipment are usable by anyone, regardless of disability; and
- Mechanisms to ease the cost and inconvenience of technology obsolescence for consumers.

6. Develop multi-level public/private partnerships among governmental agencies, community organizations and nonprofit and industry groups to create and implement telecommunications policy.

The federal role is to set the overall goal and take actions that would otherwise have to be taken 50 separate times, and to preempt the states and localities only in areas where it is clear that there should be no regulation (e.g. rates for CPE or information services). The FCC should steer the process of introducing full and effective competition and overall deregulation, with the states largely doing the heavy rowing to implement it.

The states act to implement specific areas of open entry - full competition process, such as developing specific regulatory incentives, effective interconnection and unbundling, proper pricing signals, pushing the evolving universal service concept. Localities must be involved in deciding policies for fair, equitable use of their rights-of-way. They should not become a third layer of telecommunications regulation, but they have a significant role to play

when the implementation of federal and state policies is dependent upon the cooperation of local communities. All levels must work together on developing electronic service delivery mechanisms.

Inter-governmental and public/private partnerships should be encouraged to aggregate demand so that competitors can understand the potential for profitable service in locations that do not seem profitable. Developing and facilitating applications of the evolving technologies in such areas as education, health care and governmental information are socially necessary as well as critical to achieving almost any promised vision of the information age. Yet, it is in these community-based applications that the development and aggregation of effective demand may be most difficult to link up with the investment decisions of industry competitors unless the various parties have developed working relationships with each other and have participated in pilot programs demonstrating community use of these new technologies.

7. Recognize the importance of non-regulatory roles for governments at all levels (i.e. delivery of government services, contracting power, etc.)

Governments are significant users and providers of advanced telecommunications networks and services. As a result, they are in a strong position to influence the development of these networks. Moveover, states understand the importance of these networks to their goals of economic development, health care access and cost containment and improvement of education and these departments can influence the development of these networks in their states through their budget allocations.

Among the proactive steps governments can take that do not entail regulation are to:

- Provide leadership in educating the public on critical needs and opportunities.
- Commit to deliver services electronically, in order to create demand for public services in a market environment. In the transition period to advanced universal service, offer these services both electronically and in traditional media.
- Offer incentives to the private sector to deploy and invest in advanced networks for underserved areas so that services can be delivered equitably.
- Provide support for research, evaluation and demonstration projects, and disseminate findings to policymakers and to the general public.
- Offer incentives to individuals to act electronically (i.e., save money by transacting business with the government on-line).

8. Develop privacy, copyright and consumer protection safeguards and ensure training and demonstration projects for citizens and nonprofit organizations.

Citizens' concerns for privacy may create significant barriers to their use of advanced networks. E-mail communications, the delivery of personally identifiable health care information and services and citizens' usage patterns of the enormous variety of services that are delivered electronically are highly vulnerable to invasions of their privacy. A comprehensive privacy statute dealing with telecommunications and with health care

information are essential if citizens are to be able to use these advanced networks without risking fundamental rights.

Unless copyright issues in the electronic media can continue to maintain the delicate balance achieved in the print media between fair use and protection for the rights of authors and artists, the new electronic technologies may discourage rather than promote the free flow of information so vital to the functioning of our democratic system. Legislation embracing the fair use doctrine in electronic media is essential.

Finally, adoption of any new technology frequently meets with resistance from individuals who are not familiar with the benefits which these technologies can provide. In order to overcome this resistance, it is essential that citizens and non profit organizations have the opportunity to learn how to use the new communications technologies in real time on line demonstration projects.

Conclusion

By using these eight principles to guide telecommunications policy development, the Alliance for Public Technology believes that our goal of a functionality defined advanced universal service is attainable.

Acknowledgments

The Alliance for Public Technology dedicates this paper to the memory of Dr. Susan G. Hadden, who was a member of the APT Board and Chair of its Public Policy Committee at the time of her death in January 1995. One of her last writings was an early draft of this statement of principles.

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